

TECHNICAL EXHIBIT  
IN SUPPORT OF PETITION FOR RECONSIDERATION IN MB DOCKET NO. 87-268  
ADVANCED TELEVISION SYSTEMS AND THEIR IMPACT UPON THE  
EXISTING TELEVISION BROADCAST SERVICE  
TELEVISION STATION WHEC  
ROCHESTER, NEW YORK

Technical Exhibit

This technical exhibit was prepared in support of the *Petition for Reconsideration* for television (TV) station WHEC. WHEC operates on channel 58 digital television (DTV), and channel 10 analog (NTSC) television at Rochester, New York. WHEC has been ordered back to its analog channel 10 for post-transition DTV operation. WHEC intends to operate with its existing analog antenna for post-transition DTV operation. As WHEC's analog antenna is non-directional (ND) and its channel 10 DTV allotment has a directional antenna (DA), there is an antenna pattern mismatch.

Therefore, for station WHEC to serve the area encompassed by its analog Grade B coverage contour, using its analog non-directional antenna with a radiation center of 301 meters above mean sea level (AMSL), it must operate with an effective radiated power (ERP) of 10.5 kilowatts and antenna height above average terrain (HAAT) of 152 meters. Such operation will not cause more than 0.1% interference, compared to its present post transition DTV allotment, to any other allotment. Attached as Figure 1 is a coverage map showing the herein proposed post-transition facility does not have a noise-limited contour extending beyond its Grade B analog contour.

Proposed WHEC Channel 10 Post Transition  
DTV Table of Allotment Parameters

It is requested that the Commission modify the proposed  
Appendix B DTV Table of Allotment specifications to the following:

Facility ID	State & City		NTSC	DTV								
			Chan	Chan	ERP (kW)	HAAT (m)	Antenna ID	Latitude (DDMMSS)	Longitude (DDMMSS)	Area (sq km)	Population (thousand)	Percent IX Received
70041	NY	Rochester	10	10	10.5	152	N/D	430807	773502	20141	1,202	0.0

Certification

WHEC certified on its FCC Form 381, Pre-Election Certification Form<sup>1</sup>, that it will operate its post-transition DTV station pursuant to replication. From Commission's published Table II of 1998 Station NTSC and DTV Replication Information, the initial channel 58 WHEC DTV replication facility served 1,221,326 persons over an area of 20,745 km<sup>2</sup>. These values compare with the herein proposed post-transition facility which serves 1,202,000 persons over an area of 20,141 km<sup>2</sup>.

It is furthermore noted that the proposed channel 10 post-transition allotment does not create interference in excess of 0.1 to other post-transition stations based upon the 2000 Census. Figure 2 is a tabulation of the allocation study performed for the Channel 10 post-transition facility.

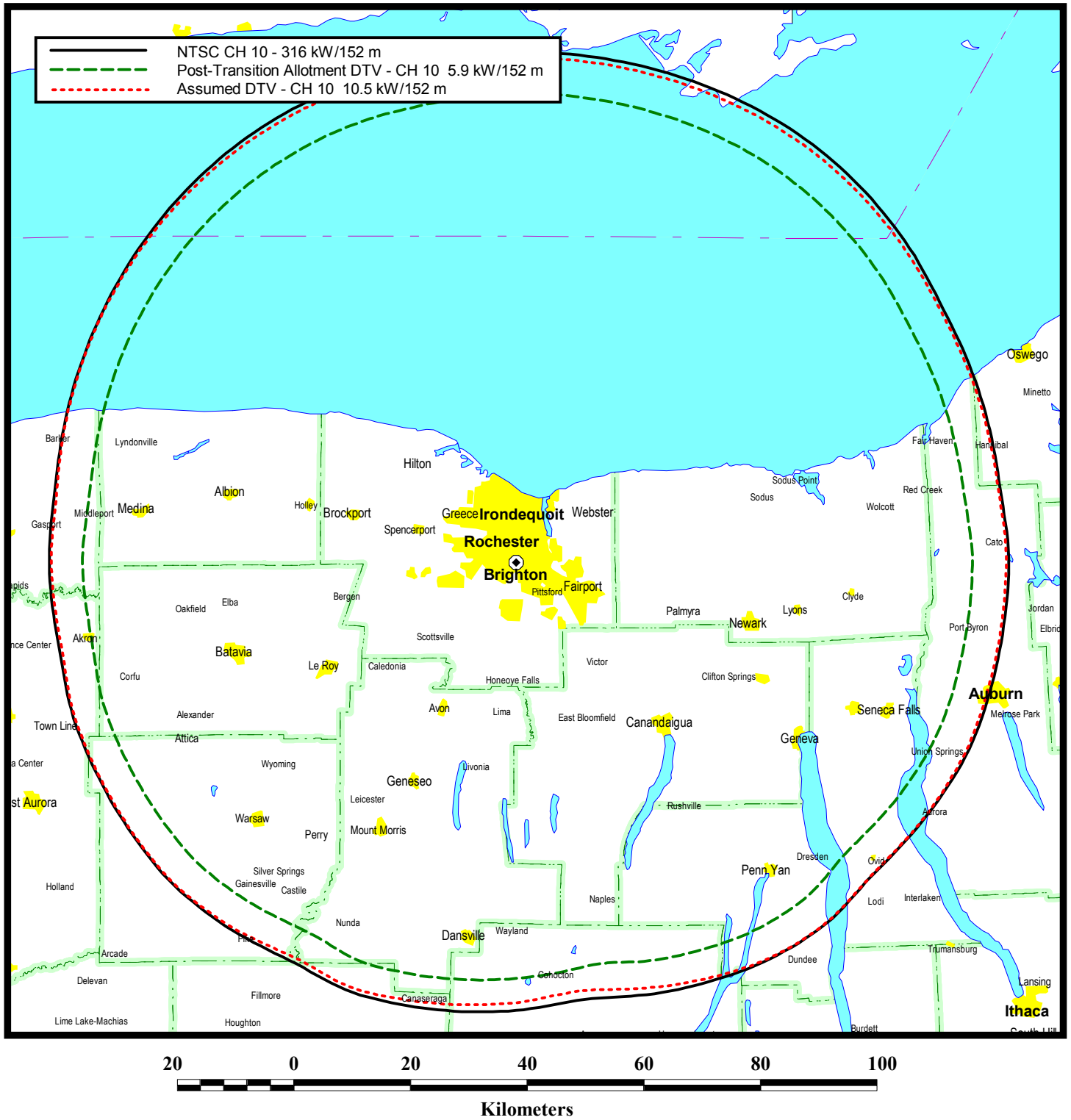
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October 25, 2007

<sup>1</sup> See FCC File Number: BCERCT-20041105AUD.

Figure 1



## PREDICTED COVERAGE CONTOURS

STATION WHEC-TV  
ROCHESTER, NEW YORK

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

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OET-69 Analysis

Census data selected 2000

Post Transition Data Base Selected  
/export/home/cdbs/tvdb.sff\_G  
TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 10-23-2007 Time: 17:18:15

Record Selected for Analysis

WHEC-TV USERRECORD-01 ROCHESTER NY US  
Channel 10 ERP 10.5 kW HAAT 152. m RCAMSL 00301 m  
Latitude 043-08-07 Longitude 0077-35-02  
Status APP Zone 1 Border  
Last update Cutoff date Docket  
Comments  
Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	36.0 dBu F(50,90) (km)
0.0	10.500	195.9	86.5
45.0	10.500	189.7	86.0
90.0	10.500	164.8	84.1
135.0	10.500	139.9	81.3
180.0	10.500	110.1	75.2
225.0	10.500	131.9	80.0
270.0	10.500	129.7	79.6
315.0	10.500	163.2	83.9

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountain

Proposed facility is within the Canadian coordination distance  
Distance to border = 55.9km

Proposed facility is beyond the Mexican coordination distance

Proposed station is 3.02km from AM station  
ROCHESTER NY WWG Status: L Antenna: DAN

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Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
10	WHEC-TV	ROCHESTER NY	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
10	WTNH	NEW HAVEN CT	425.8	LIC	BLCDT -20040701AEC
10	WOIO	SHAKER HEIGHTS OH	390.0	LIC	BLCDT -19991110AAR
10	WHTM-TV	HARRISBURG PA	317.8	CP	BPRM -20010514ABX

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Analysis of Interference to Affected Station 1

Channel	Call	City/State	Application Ref. No.
10	WTNH	NEW HAVEN CT	BLCDT -20040701AEC

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
09	WEDN	NORWICH CT	66.2	CP	BMPEDT -20031008AAT
09	WMUR-TV	MANCHESTER NH	206.6	LIC	BLCDT -19990927ABC
10	WWDP	NORWELL MA	171.1	CP	BSRCCT -20060403BRS
10	WCBB	AUGUSTA ME	386.9	CP	BDTV -00000064
10	WHTM-TV	HARRISBURG PA	357.9	CP	BPRM -20010514ABX
11	WWLP	SPRINGFIELD MA	76.4	CP MOD	BMPCDT -20010926ABO
11	WPIX	NEW YORK NY	119.0	LIC	BLCT -810826KH
10	WHEC-TV	ROCHESTER NY	425.8	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 2

Channel	Call	City/State	Application Ref. No.
10	WOIO	SHAKER HEIGHTS OH	BLCDT -19991110AAR

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
09	WTOV-TV	STEUBENVILLE OH	147.1	CP MOD	BMPCDT -20020408AAK
10	WILX-TV	ONONDAGA MI	265.3	CP	BDTV -00000078
10	WCPO-TV	CINCINNATI OH	346.1	CP	BDTV -00000060
10	WHTM-TV	HARRISBURG PA	416.3	CP	BPRM -20010514ABX
10	WVFX	CLARKSBURG WV	258.7	CP MOD	BMPCDT -20020930AAV
10	WSWPTV	GRANDVIEW WV	392.7	LIC	BLET -830831KF
11	WTOL	TOLEDO OH	143.7	LIC	BLCDT -20031103ABR
11	WPCW	JEANETTE PA	195.1	CP	BPCDT -20060510AAI
10	WHEC-TV	ROCHESTER NY	390.0	APP	USERRECORD-01

Proposal causes no interference

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Analysis of Interference to Affected Station 3

Analysis of current record

Channel	Call	City/State	Application Ref. No.
10	WHTM-TV	HARRISBURG PA	BPRM -20010514ABX

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
09	WUSA	WASHINGTON DC	152.2	LIC	BLCDDT -20040206AAS
09	WBPH-TV	BETHLEHEM PA	130.7	CP MOD	BMPCDT -20030522ADF
10	WTNH	NEW HAVEN CT	357.9	LIC	BLCDDT -20040701AEC
10	WOIO	SHAKER HEIGHTS OH	416.3	LIC	BLCDDT -19991110AAR
10	WVFX	CLARKSBURG WV	310.9	CP MOD	BMPCDT -20020930AAV
11	WBAL-TV	BALTIMORE MD	112.0	LIC	BLCDDT -20020422AAR
11	WBRE-TV	WILKES-BARRE PA	132.3	CP MOD	BMPCDT -20000501ACL
10	WHEC-TV	ROCHESTER NY	317.8	APP	USERRECORD-01

Total scenarios = 1

Result key: 1  
Scenario 1 Affected station 3  
Before Analysis

Results for: 10A PA HARRISBURG BPRM 20010514ABX CP

HAAT 346.0 m, ATV ERP 14.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	2643930	26862.0
not affected by terrain losses	2197401	22613.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	12196	241.0
lost to ATV IX only	12196	241.0
lost to all IX	12196	241.0

Potential Interfering Stations Included in above Scenario 1

10A CT NEW HAVEN	BLCDDT	20040701AEC	LIC
10A WV CLARKSBURG	BMPCDT	20020930AAV	CP
11A MD BALTIMORE	BLCDDT	20020422AAR	LIC
11A PA WILKES-BARRE	BMPCDT	20000501ACL	CP

After Analysis

Results for: 10A PA HARRISBURG BPRM 20010514ABX CP

HAAT 346.0 m, ATV ERP 14.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	2643930	26862.0
not affected by terrain losses	2197401	22613.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	12285	245.0
lost to ATV IX only	12285	245.0
lost to all IX	12285	245.0

Potential Interfering Stations Included in above Scenario 1

10A CT NEW HAVEN	BLCDDT	20040701AEC	LIC
10A WV CLARKSBURG	BMPCDT	20020930AAV	CP
11A MD BALTIMORE	BLCDDT	20020422AAR	LIC
11A PA WILKES-BARRE	BMPCDT	20000501ACL	CP
10A NY ROCHESTER	USERRECORD01		APP

Percent new IX = 0.0041%

Worst case new IX 0.0041% Scenario 1

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Analysis of Interference to Affected Station 4

Analysis of current record

Channel	Call	City/State	Application Ref. No.
10	WHEC-TV	ROCHESTER NY	USERRECORD-01

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
10	WTNH	NEW HAVEN CT	425.8	LIC	BLCDT	-20040701AEC
10	WOIO	SHAKER HEIGHTS OH	390.0	LIC	BLCDT	-19991110AAR
10	WHTM-TV	HARRISBURG PA	317.8	CP	BPRM	-20010514ABX

Total scenarios = 1

Result key: 2  
Scenario 1 Affected station 4  
Before Analysis

Results for: 10A NY ROCHESTER USERRECORD01 APP

HAAT 153.0 m, ATV ERP 10.5 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	1239227	21215.1
not affected by terrain losses	1202393	20141.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	32	4.0
lost to ATV IX only	32	4.0
lost to all IX	32	4.0

Potential Interfering Stations Included in above Scenario 1

10A PA HARRISBURG BPRM 20010514ABX CP

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